

CLAIMS

1. An integrated circuit communicating digital data with a remote host, said integrated circuit comprising:

a wireless transceiver for receiving said digital data from said remote host;

a base band unit connected to said wireless transceiver to perform data processing operations on said digital data; and

a programmable logic component connected to said base band unit using said digital data to configure said programmable logic component.

2. The integrated circuit of claim 1 further comprising an amplifier coupled to said wireless transceiver.

3. The integrated circuit of claim 2 wherein said wireless transceiver is a radio frequency transceiver, said integrated circuit further comprising an antenna coupled to said amplifier.

4. The integrated circuit of claim 1 wherein said integrated circuit is a FPGA and said digital data is configuration bitstream data.

5. The integrated circuit of claim 1 wherein wireless transceiver is a radio frequency transceiver, and said wireless transceiver and said base band unit conform to Bluetooth protocol.

6. The integrated circuit of claim 1 wherein said base band unit and said wireless transceiver further transmit a reply to said remote host.

7. A system comprising:

a remote host comprising a wireless circuit for communicating digital data; and

at least two programmable logic devices connected in a circuit, each of said at least two programmable logic devices comprising:

a wireless transceiver for receiving said digital data from said remote host;

a base band unit connected to said wireless transceiver to perform data processing operations on said digital data; and

a programmable logic component connected to said base band unit using said digital data to configure said programmable logic component.

8. The system of claim 7 wherein said wireless transceiver of at least one of said at least two programmable logic devices is connected to an amplifier.

9. The system of claim 7 wherein said host and said at least two programmable logic devices conform to Bluetooth protocol.

10. The system of claim 7 wherein said at least two programmable logic devices are FPGAs and said digital data is configuration bitstream data.

11. The integrated circuit of claim 7 wherein at least one of said at least two programmable logic devices transmits a reply to said remote host.

12. The system of claim 7 wherein said digital data is generated by an external source, and wherein said wireless circuit further comprises:

an interface for receiving said digital data from said external source;

a processor for processing said digital data; and

a transceiver for transmitting said digital data to said at least two programmable logic devices.

13. The system of claim 12 wherein said wireless transceiver of at least one of said at least two programmable logic devices is connected to an amplifier.

14. The system of claim 12 wherein said at least two programmable logic devices and said host conform to Bluetooth protocol.

15. The system of claim 12 wherein said at least two programmable logic devices are FPGAs and said digital data is configuration bitstream data.

16. The integrated circuit of claim 12 wherein at least one of said at least two programmable logic devices transmits a reply to said remote host.

17. The system of claim 7 wherein said at least two programmable logic devices have different start times, and wherein said host transmits start commands to said at least two programmable logic devices at different times.

18. The system of claim 17 wherein said at least two programmable logic devices and said host conform to Bluetooth protocol.

19. The system of claim 17 wherein said at least two programmable logic devices are FPGAs and said digital data is configuration bitstream data.

20. The integrated circuit of claim 17 wherein at least one of said at least two programmable logic devices transmits a reply to said remote host.

21. The system of claim 7 further comprising at least one slave programmable logic device, wherein at least one of said at least two programmable logic devices is a master device

delivering said digital data to said at least one slave programmable logic device.

22. The system of claim 21 wherein said at least two programmable logic devices and said host conform to Bluetooth protocol.

23. The system of claim 21 wherein said at least two programmable logic devices are FPGAs and said digital data is configuration bitstream data.

24. The integrated circuit of claim 21 wherein at least one of said at least two programmable logic devices transmits a reply to said remote host.

25. A method for wireless communication between a remote host and a programmable logic device, comprising the steps of:

receiving, by a target programmable logic device, a query transmitted by said host;

receiving, by said target programmable logic device, a set of digital data transmitted by said host; and

configuring said target programmable logic device using at least a portion of said set of digital data.

26. The method of claim 25 further comprising a step of replying said query by said target programmable logic device.

27. The method of claim 25 further comprising the steps of:

receiving, by said host, a signal from said target programmable logic device indicating a status of said configuring step; and

logging said status by said host.

28. The method of claim 25 wherein said wireless communication follows Bluetooth protocol.

29. The method of claim 25 further comprising a step of sending, by said programmable logic device to said host, a request for reconfiguration.

30. The method of claim 25 wherein said programmable logic device is a FPGA and said digital data is configuration bitstream data.

31. The method of claim 25 wherein said target programmable logic device is connected to a slave programmable logic device, said method further comprising a step of delivering at least a portion of said digital data to said slave programmable logic device.

32. The method of claim 31 further comprising a step of replying said query by said target programmable logic device.

33. The method of claim 31 further comprising the steps of:
receiving, by said host, a signal from said target programmable logic device indicating a status of said configuring step; and
logging said status by said host.

34. The method of claim 31 wherein said wireless communication follows Bluetooth protocol.

35. The method of claim 31 further comprising a step of sending, by said programmable logic device to said host, a request for reconfiguration.

36. The method of claim 31 wherein said programmable logic device is a FPGA and said digital data is configuration bitstream data.

37. The method of claim 25 further comprising a step of receiving, by said target programmable logic device, a command to initiate operation after said configuring step.

38. The method of claim 37 further comprising a step of replying said query by said target programmable logic device.

39. The method of claim 37 further comprising the steps of:
receiving, by said host, a signal from said target programmable logic device indicating a status of said configuring step; and
logging said status by said host.

40. The method of claim 37 wherein said wireless communication follows Bluetooth protocol.

41. The method of claim 37 further comprising a step of sending, by said programmable logic device to said host, a request for reconfiguration.

42. The method of claim 37 wherein said programmable logic device is a FPGA and said digital data is configuration bitstream data.